



The Conservation Strip

CONSERVING NATURAL RESOURCES FOR A BETTER ENVIRONMENT

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CONSERVATION RECOGNITION LUNCHEON

The John Marshall Soil and Water Conservation District (JMSWCD) hosted a **Conservation Recognition Luncheon** on December 10, 2003, at The Inn at Vint Hill. Each year, the JMSWCD recognizes individuals and organizations for outstanding conservation accomplishments. Award recipients for 2003 are:

- The **2003 Harry Jones Conservation Farmer Award** for the **Potomac watershed** was awarded to **Blue Ridge Farm**, a cow-calf operation in Upperville, owned and operated by the **Grayson** and **Barreda** families. With approximately 60 head of Angus cows raised as grass-fed natural beef (and about 120 free range hens), their philosophy is to manage their mostly tall fescue and clover pastures *with the cattle*. This is accomplished through an intensive rotational grazing system that has worked so well that pastures have not had to be bush hogged for the last five years. To marry this philosophy of rotational grazing with their conservation ethic, they have actively participated in conservation practices from 1995 to the present. To date, over 7500 feet of exclusion fencing to protect streams and ponds have been installed, six alternative livestock water troughs have been developed, two hardened stream accesses have been built, and over 17 acres of marginal pastureland have been planted with hardwood trees to create a large riparian forest buffer. Under their conscientious stewardship, over 29 acres of environmentally sensitive land have been excluded from grazing and dedicated

to the protection of water quality.

- The **2003 Harry Jones Conservation Farmer Award** for the **Rappahannock watershed** was awarded to **Barrymore Farm**, a cow-calf operation located just south of Marshall, owned and operated by the **DeButts** family. Barrymore Farm carries about 100 cows and their calves on pasture through a rotational grazing system. The John Marshall SWCD and the National Resources Conservation Services began working with Mr. DeButts in 1996 to complete their first stream protection practice which included 751 feet of fence and a hardened stream crossing. In 2002, with the help

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(l-r) Harry Atherton, Fauquier County Supervisor; Nic Kortlandt, JMSWCD Chairman; Helen Christian, Barrymore Farm; Leslie Grayson, Mike Barreda and Zeb, Blue Ridge Farm; David Coleman and Jeff Brower, Conservation Services, Inc.; and, Richard Robison, Fauquier County Supervisor.

Meet JMSWCD Volunteer **John Schied**

John Schied grew up in Wisconsin where he spent summers working on his uncle's dairy farm. He graduated from the University of Wisconsin with a B.S. and M.S. in chemical engineering.

John served in the Marine Corps as an engineer officer, college professor, Pentagon 'Whiz Kid', and special operations officer and earned graduate degrees in business administration and economics. He was awarded the Department of Navy "Engineer of the Year" award for excellence in management and Marine Corps commercial and industrial activities. After retiring from the Marine Corps in 1970, John spent the next 17 years as Education Director for the Data Management Information Association, where he was awarded the association's highest award, the "President's Award".

John and his wife, Marilee, have operated a cow/calf operation in Fauquier County since 1976. For almost ten years, he has served as a volunteer Erosion and Sediment Control inspector and plan reviewer at the JMSWCD. John is also vice-president (and past president) of the Fauquier County Farm Bureau, a member of the Ag Advisory Committee, the Conservation Roundtable, the Extension Leadership Council, the VA Farm Bureau Electric Deregulation Committee and the Building Committee at St. John's. John's avocation is foreign travel because it "widens horizons and helps us appreciate the good things in life we largely take for granted". He firmly believes the need "to preserve these benefits for those who follow us".



John Schied
E & S Volunteer

Teacher's Corner

- Application forms are available for the **Virginia SWCD Education Foundation Scholarships**. High school seniors who plan to study conservation or other environmental fields are eligible. Applications are due by March 1, 2004. Call 347-3120, ext. 3, for more details.
- In conjunction with "**Soil and Water Stewardship Week**", April 25-May 2, 2004, the JMSWCD is sponsoring a **poster contest** for **fourth grade students**. The theme for Stewardship Week and for the poster contest is "**The Living Soil**". For more information, free posters and other materials, call the JMSWCD at 347-3120, ext. 3.
- Will your class study **soils, watersheds, water pollution** or similar topics during the school year? The JMSWCD has a variety of **classroom programs and activities** to supplement your conservation education curriculum, including an EnviroScape model, to help meet appropriate SOLs. To find out more, call 347-3120, ext. 3.
- The JMSWCD is seeking teachers and students from all high schools in Fauquier County who wish to participate in this year's **Envirothon** competition. Envirothon teams study natural resource topics and then test their knowledge against other teams at regional and state levels. The program is built on an "in field" style of learning, and is intended to be fun as well as educational. For more

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EVENT CALENDAR

Master Gardener Horticulture Hotline. Call (540) 341-7950, ext. 19, for gardening questions, insect identification, disease identification, weed identification, etc. The hours are 9-3, M-F.

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| January 24 | Landowners Woods and Wildlife Conference, 2nd Annual , Manassas. This is a virtual one stop shop for individuals, families, managers and interested individuals to learn about their woods, wildlife and other natural resources. The goal is to help landowners to make "best decisions" for themselves, their land, and society. This conference is being repeated on February 7, 2004, in Charlottesville. Call Keith Dickinson at (540) 341-7950 for more information. |
| January 30 | Northern Piedmont Area Forage Conference , Marshall Ruritan Building, Marshall. Sponsored by the VA Cooperative Extension and the VA Forage and Grasslands Council. This conference is also being held on January 29, 2004, at Graves Mountain Lodge, Syria. For more information call Keith Dickinson at (540) 341-7950. |
| March 13 | Tree Seedling Pickup , Department of Forestry, Warrenton, VA. 9:00 a.m.-1:00p.m. This will be the only pickup date. Call the JMSWCD for more information at (540) 347-3120, ext. 3. |

THE EARTH'S LIMITED WATER RESOURCES

by: Catherine B. Waterhouse, Conservation Education Specialist

Water is vital to life on Earth. It supports virtually every human undertaking – from agriculture to power generation. Even though approximately 71% of the Earth is covered with water, only a small portion, about 0.003%, is available for human use. 99.997% is tied up as salt water, frozen at the poles, too far underground, trapped in soil, or polluted. If all potable (drinkable) water was distributed equally among every person on Earth, each person would receive about 2.18 million gallons for personal use. However, for many people, potable water is a scarce commodity due to geographical, climatic, political and/or economic conditions. Approximately 3 billion people (one-half of the world's population) are living in unsanitary conditions without access to clean water. According to Paul F. Boulous, Ph.D, world-wide demand for water is doubling every 21 years due to population and economic growth, with some areas demanding an even larger portion. Problems exist even in the United States. The U.S. Department of Interior (<http://www.doi.gov/water2025>) has recently “flagged” several western U.S. cities where water conflict is “highly likely” by 2025. These cities include Las Vegas, Nevada; Denver, Colorado; Salt

Lake City, Utah; Houston, Texas; and Flagstaff, Arizona.

Can this “water conflict” happen in Virginia despite its richness in water resources? In one word: Yes! Imagine what would have happened to the Commonwealth's water supplies if the severity of the recent drought had continued for another 2-3 years. Fortunately, however, unlike most western states, Virginia was able to recover quickly from the drought due to a long period of unusually wet weather commencing in the Fall of 2002. According to a recent Department of Environmental Quality (DEQ) report to Governor Mark Warner, the drought “emphasized the need for a more proactive water supply planning, more efficient and effective water delivery systems, and more innovative financing methods to maximize available resources for drinking water improvements.” A Water Policy Technical Advisory Committee was formed to work with regional and local governments to develop a comprehensive, state-wide water supply and water resource plan to meet water supply needs, even in times of extreme drought.

<http://www.deq.state.va.us/regulations/waterreport2003.pdf>
<http://www.infoforhealth.org/pr/m14/m14chap1.shtml#top>

WHAT VIRGINIANS CAN DO TO CONSERVE WATER

According to DEQ, the average Virginian uses 60-80 gallons of water each day. What can you do to conserve water at home, even when there is no drought? Here are some water conservation tips:

Clothes washer (21.7% of water use; 56,000 gallons per year)

- operate only full loads
- consider replacing older machines which use approximately 41 gallons per load, while new high efficiency machines use only 23 gallons

Dishwasher (1.4% of water use; 3600 gallons per year)

- wash full loads
- consider replacement – new models reduce water usage by 30-50%

Faucet (16% of water use; 35,000 gallons per year)

- turn off the running water when brushing teeth and shaving
- install low flow restrictors/aerators to faucets (\$2-\$4)

Showerheads (16% of water use; 37,000 gallons per year)

- take shorter showers (a typical shower last 8 minutes and uses 17 gallons; an efficient shower last 3 to 4 minutes and use 7.5 gallons)
 - Install low flow showerheads
- Leaks** (14% of water use; 30,000 gallons per year)
- check for and repair toilet leaks (leaking toilets will waste 30 to 500 gallons of water per day)
 - fix faucet leaks; usually a washer will work (a dripping faucet can waste up to 5 gallons per day)

Toilet (27% of water use; 60,000 gallons per year)

- offset older toilets (which use 5+ gallons of water when flushed) with a plastic jug of pebbles and water to minimize the amount of water used
- consider installing a low flow toilet – uses 1.2-1.5 gallons per flush

For more information, check these websites:

<http://www.dcr.state.va.us/sw/amznstuf.htm>

<http://www.deq.state.va.us/water/waterconservation.html>

http://www.bewatersmart.org/indoor_tips.html



Jimmy Messick explains the milking procedure to a group of seventh grade students from Taylor MS.

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details, (540) 347-3120, ext. 3.

- **Interesting Websites for Teachers:**

<http://earthquake.usgs.gov/4teachers/> *USGS*. This fascinating earthquake website has a section for both students and teachers. The teachers' section contains grade appropriate lessons, a downloadable Power Point slide show, virtual tours, etc. The "For Kids Only" section contains puzzles and games, latest quake info, science fair project ideas, and many other items. Check it out!

<http://www.enaturalist.org/index.htm> *The Electronic Naturalist*. This site is a new online education program providing a weekly environmental education unit. Each unit has art work, text, activities, additional websites, plus online access to a professional naturalist. **This is an interesting site.**

Conservation Field Day Held at Messick's Dairy Farm

Thanks to the **Obrey Messick family**, seventh grade students from **Taylor Middle School** have a clearer understanding and a greater appreciation for agriculture and conservation in a farm environment. On October 15, 2003, approximately 200 students from Taylor Middle School attended a **Conservation Field Day**, sponsored by the JMSWCD, at Messick's Dairy Farm. Students rotated through eight different stations that demonstrated farm and conservation-related topics. The topics included: insects, dairy operations, nutrient management, farm management, water quality, macroinvertebrates, forestry and soils.

The Messick family is to be commended for allowing their farm to be used once again for this important educational opportunity. The JMSWCD also thanks the guest speakers for ensuring the success of this valuable learning experience: **Jimmy Messick**; **Ronnie Messick**; **Chuck Hoysa**, retired Fauquier County Extension Agent; **Jim Scibek**, President, VA Master Gardeners; **Sherin Murphy**, Master Gardener; **Robert Shoemaker**, Department of Conservation and Recreation; **Robyn Joiner**, Joiner Micro Labs; **Chuck Kuhler**, VA Department of Forestry; **Laura Edmonds**, Fauquier County Community Development; and, **Tom Turner**, JMSWCD.

Rappahannock and Potomac Tributary Strategies

The Virginia Department of Conservation and Recreation (DCR) is currently working with federal, state, and local governments to develop workable strategies to reduce surface water nutrient loads within the Rappahannock and Potomac watersheds. The purpose of this effort is to meet aquatic life and water quality goals outlined in the 2000 Chesapeake Bay Agreement. Nutrient sources vary depending on the type of development within the watershed. Within urban areas, for example, the emphasis is on reducing discharge from wastewater treat-

ment facilities as well as reducing residential fertilizer application through urban nutrient management planning. In rural areas, DCR is focusing on the application of more agricultural Best Management Practices (BMPs) to farmland. By bringing more farmland under nutrient management and conservation planning, the amount of sediment, bacteria, and nutrients entering surface waters can be reduced. For more information on Tributary Strategies contact John Chambers or Tom Turner at (540) 347-3120, ext. 3.

of Mr. DeButts' daughter, Helen Christian, the family began an impressive effort to protect all the surface water on Barrymore Farm. Over 11,431 feet (2+ miles) of exclusion fencing to protect streams, ponds and wetlands were installed, seven alternative livestock water troughs have been developed, one hardened stream crossing has been built, and 16.7 acres have been planted in hardwood trees to create two large riparian forest buffers. These practices represent over 22 acres of environmentally sensitive land that have been set aside and committed to the protection of water quality.

- The **2003 Agricultural Contractor Award** was presented to **Conservation Services, Inc (CSI)**., based out of Staunton, VA. CSI has planted nearly 300 acres of hardwood riparian buffers in Fauquier County since the inception of the Conservation Reserve Enhancement Program in 2001. The survivability rate of the trees has been, on average, an impressive 85-90% at two years. In addition to doing an outstanding job of tree planting, CSI has periodically conducted seminars on buffer maintenance to further the goal of successful riparian buffer establishment. These have been offered free of charge to landowners and other interested people. **Jeff Brower** and **David Coleman** accepted the award.

Holiday Lake Forestry Camp

For over 50 years, **Holiday Lake Forestry Camp** has introduced young Virginians, ages 13-16, to the challenges, special skills and knowledge needed for managing forest resources. The camp is designed for students who want to: explore and experience activities in forestry and wildlife related careers; participate in forestry and wildlife judging teams, Envirothon competitions or ecology clubs; and, have a special interest in *hands on* learning about natural resources. Classes are taught by professional foresters, wildlife biologists and conservation resource specialists. Located within the 20,000 acre Appomattox-Buckingham State Forest, the Camp is held at the Holiday Lake 4-H Education Center from **June 14-19, 2004**. The JMSWCD sponsors **two** students to attend this camp each year. The registration deadline is April 23, 2004. Call the JMSWCD office, 347-3120, ext. 3, for more details.

Youth Conservation Camp

Each year the JMSWCD sponsors two students, grades 9-12, to **Youth Conservation Camp** held at Virginia Tech in Blacksburg. The camp explores a wide variety of topics such as: soils, water quality, forestry, wildlife, urban pollution issues, using new technology in resource management and marine biology. Other activities may include touring the Dairy Science Center, hiking, and canoeing. The date for the camp is July 11-17, 2004. Applications must be in the JMSWCD office by May 1, 2004. If you are interested, please call 347-3120, ext. 3, for further information.

The Conservation Strip is a quarterly publication of the **JOHN MARSHALL SOIL AND WATER CONSERVATION DISTRICT**, 98 Alexandria Pike, Suite 31, Warrenton, Virginia, 20186-2849.

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13th Annual Tree Seedling Sale

The JMSWCD will be taking tree seedling orders through **February 24, 2004**. As in years past, several native trees and shrubs are being offered. Seedlings include:

Eastern White Pine (*Pinus strobus*)
Norway Spruce (*Picea abies*)
“Gobbler” Sawtooth Oak (*Quercus acutissima*)
“Flame” Maple (*Acer ginnala* ‘Flame’)
American Hackberry (*Celtis occidentalis*)
Red Osier Dogwood (*Cornus sericea*)
Witch-hazel (*Hamamelis virginiana*)
American Plum (*Prunus americana*)
Blackhaw Viburnum (*Viburnum prunifolium*)

Trees must be picked up at the Department of Forestry **only** on **March 13, 2004**. For more information, or to request an order form, please call (540) 347-3120, ext. 3.

Wildlife Seed Mix Available

If establishing a food patch for wildlife on your property is important, reserve a **free** bag of wildlife seed mix from the JMSWCD. As part of its continuing effort to promote wildlife conservation, the JMSWCD is offering a a five-pound bag of perennial seed mix on a first-come, first-served basis to Fauquier landowners, clubs and organizations while supplies last. The limit is five pounds per family or organization. Ideal for attracting birds and small mammals, the mixture is appropriate in small patches or strips along fence rows, around ponds or along tree lines. The mix will not be available until the middle of March, but call the JMSWCD at 347-3120, ext. 3, to reserve your free perennial seed mix as soon as possible.

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